In the Specification:

Amend the following paragraphs as follows:

[0019] Those familiar with RF circuits will recognize that in a conventional system of the type shown in Figure 1, proper operation requires that all amplifiers 16A-16D be operating to normal specification, with equal amplifier power and phase. In the event one of the amplifiers, such as amplifier 16~~C~~A-16D, should fail, the result will be a possible impedance mismatch at divider 14 and a power combining impedance mismatch at combiner 18. The resulting signal loss will exceed the 1/4 power loss normally associated with the failed amplifier, because of the impedance mismatch at the combiner. In the event that one of amplifiers 16A-16D fails, or in the event that it is desired to disconnect one of the amplifiers 16A-16D, it is desirable to reconfigure power divider 14 and power combiner 18 to isolate the failed amplifier 16~~C~~A-16D from the other elements of the system.

[0023] The inner conductor portions shown in Figure 3 include a common input port 33, which is connected to a 50 ohm slab-line inner conductor 36 to be mounted within housing 42, as shown in Figures 4 and 5. Coaxial output ports 35A, 35B, 35C and 35D are selectively connectable to input port 33 via inner conductor 36 such that ~~connect inner conductor 36 selectively to~~ one or more of output ports 35A-35D can be coupled to input port 33. According to the number of output ports connected, an input signal provided to input port 33 is provided as an output signal to one or more output ports 35. Reeds 34A, 34B, 34C and 34D are mechanically moved between open or "off' positions and closed or "on" positions by electromagnets in a conventional manner as will be further explained.

[0024] Those skilled in the art will recognize that when ~~a single output port~~ one of output ports 35A-35D is connected to input port 33 by one of switching reeds 34A-34D, the load presented to input port 33 is a match, i.e., 50 ohm, impedance load. As additional output ports 35 are connected by switching of their respective switch reeds 34A-34D, provisions must be made for impedance matching the input port 33 to the changed load condition.

[0025] To provide for impedance matching, switchable matching stub reeds 37, 38 and 39 are respectively located at selected distances D1, D2 and D3 along slab transmission line 36 from the switching connection point. Each impedance matching reed 37, 38, and 39 has a respective impedance matching length L1, L2 and L3, which is selected to provide reactive impedance matching for the power divider when 2, 3 or 4 of output ports 35A-35D are connected to transmission line 36 by their respective switching reeds 34A-34D. In substantially the same manner as illustrated in Figures 6 and 7 with respect to switching reeds 34A-34D, solenoids 52 ~~as shown in Figures 6 and 7~~ are arranged to move switchable matching reeds 37, 38 and 39 (Fig. 4) between a "down" position contacting center conductor 36 and mechanical rest 40 (Fig. 4) and an "up" position away from the center conductor 36.

[0031] Reference is made to the perspective view of Figure 6 and the cross-sectional view of Figure 7, which illustrate a typical configuration for operation of reeds 34A-34D of the preferred embodiments of Figures 3 through 5. As shown in Figure 6 and Figure 7, RF housing 42 is provided with a cover plate 46 to provide an RF assembly 48 (Fig. 6) having an RF cavity 44 defined therein. A solenoid mounting plate 50 is secured to cover plate 46 and provided with solenoids 52 having armatures 68, which act on pin 70 carrying reeds 34 which engage terminal 35 and center conductor 36 for activating the switch (Fig. 7). The impedance matching reeds are

similarly driven by solenoids. A circuit board 60 is conveniently mounted above solenoids 52, and includes integrated circuits 66 for providing driving currents in accordance with supplied logic signals representing the desired state of the power divider, provided to terminal 62, and using DC power supplied to terminals 64.

[0034] As an additional feature, it is possible to provide a power amplifier system which will have a "fail soft" characteristic. Monitor couplers 72A, 72B, 72C and 72D are provided at the output of each individual amplifier 16A-16D, and the monitor signal is provided to detectors 74. Control logic 76 responds to a failure of any of amplifiers 16A-16D to discontinue operation of that amplifier, and reconfigure power divider ~~14~~ 32 and power combiner ~~18~~ 32' for operation with the remaining three amplifiers. Accordingly, the amplifiers continues to function with reduced power output.